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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,409	03/16/2004	Paul N. Stoving	08215-540001 / P03-026853	3843
26171	7590	12/01/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			FISHMAN, MARINA	
			ART UNIT	PAPER NUMBER
			2832	

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No.	Applicant(s)	
	10/802,409	STOVING ET AL.	
	Examiner	Art Unit	
	Marina Fishman	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 5, 8, 18, 21, 22, 24- 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 - 5, 8, 27 and 28 is/are allowed.
- 6) ☒ Claim(s) 18, 21, 22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/16/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

General status

1. This is a First Action on the Merits for RCE. Claims 1 - 5, 8, 18, 21, 22, 24 - 28 are pending in the case and are being examined.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters because reference character "102", "12" and "118" all have been used to identify "sleeve" [Figure 2]. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 18, 21, 22, 24 - 26 are objected to because of the following informalities:

In Claim 18, it is not clear which element is being referred to by "hollow housing." The Examiner interprets "current exchange housing 118" as hollow housing. Page 3, lines 20 and 21, of the instant specification does describe the hollow housing, however, the detailed description of the drawings does not describe "hollow housing".

Appropriate correction is required. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18, 21, 22, 24 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pflanz [US 3,849,617].

Pflanz disclose a vacuum switching device comprising:

- a vacuum interrupter [10];
- a current exchange housing adjacent to the vacuum interrupter [Figure 1];
- a seal [11,14] provided around the vacuum interrupter and the current exchange housing so as to define a cavity [71,72, 23] within the current exchange housing and adjacent to the vacuum interrupter; and
- a tube [24; Column 2, lines 60-65] provided within the seal, the tube disposed such that a first end of the tube accesses the cavity and a second end of the tube accesses an exterior of the seal;
- an operating rod [27].

Regarding Claims 18 Pflanz discloses that the tube [24] is sealed [Column 2, line 66]. The limitation "sealed with cured encapsulation..." is being treated as a product by

process limitation. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulation of the recited steps. The tube [24] provided by Pflanz is structurally identical to that claimed by Applicant. Therefore, the burden is shifted to Applicant to show an unobvious difference [MPEP 2113].

Regarding Claim 25, Pflanz discloses that the seal [11,14] can be made of any suitable material [Column 2, lines 48 – 51]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the encapsulation material include a pre-filled, hot-curing, two-component epoxy resin, since it is been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability. [In re Leshin, 125 USPQ 416.]

Regarding Claims 21 and 22, the tube [24] is functionally equivalent to a syringe needle inserted through the seal. The tube [24] functions to evacuate the air from the cavity. A syringe needle is merely a hollow tube that in the instant invention performs the same function as Pflanz's tube [24].

6. Claims 18, 21, 24 - 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumbera et al. [US 4,168,414] in view of Pflanz [US 3,849,617].

Kumbera et al. disclose a vacuum switching device comprising:

- a vacuum interrupter [3];
- a hollow housing adjacent to the vacuum interrupter [42, Figure 3];
- a seal [23, 51] provided around the vacuum interrupter and the hollow housing so as to define a cavity [space between

element 48 or 50 and bottom end of element 42, Figure 3]
within the hollow housing.

Kumera et al. discloses all the elements of claimed invention, except for a tube through the seal. Pflanz, discloses a tube [24]. It would have been obvious to one of ordinary skill in the art at the time the invention is made to provide a tube through the seal in the interrupter of Kumera et al., as suggested by Pflanz in order to evacuate the space [Pflanz, column 2, lines 59-64].

Regarding Claim 21, since the tube is sealed after evacuation, the diameter of the sealed tube will be small enough not to allow liquefied encapsulation material from outside of the vacuum switching device. Regarding Claims 24 and 25, the tube, in the modified vacuum switching device will have first end inside the cavity and the second end exterior to the vacuum switching device. The second end being sealed, it would have been obvious to seal it with an encapsulation material. The selection of a particular material for the encapsulation would be an obvious matter of design choice. Regarding Claim 26, an operating rod [40] extending through the seal is disclosed by Kumera et al. in Figure 3.

Response to Arguments

7. Applicant's arguments filed 11/07/2005 have been fully considered.

Claims 1 - 5, 8, 27 and 28 are allowed.

With regard the arguments related to Pflanz (Claims 18, 21, 22 and 24-26), the Applicant has argued that "Pflanz does not disclose a housing adjacent to a vacuum interrupter and a seal around the vacuum interrupter and the housing." The Examiner is

Art Unit: 2832

not sure what is being referred to as "hollow housing" and therefore, the Examiner has taken vacuum interrupter housing as "hollow housing". According to the disclosure (page 6, line 6) element 124 is "the rubber plug 124, may form at least part of seal", and as such, element 124 is taken as seal. The Examiner has interpreted Claim 18, in view of the interpretations of "hollow housing" and "seal". Since the seal 124 is not surrounding the vacuum interrupter and the hollow housing ("around" is interpreted to mean --in vicinity of--) therefore the recitation "a seal provided around the vacuum interrupter and the hollow housing" is interpreted to mean -- a seal provided in vicinity of the vacuum interrupter and the hollow housing--. In case of Pflanz reference, the Examiner has taken a portion of the housing (in the vicinity of tube) as a seal and made the rejection.

Conclusion

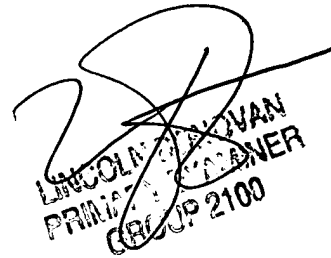
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2832

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman
November 21, 2005


LINCOLN B. FISHMAN
PRIMA CLERK
GROUP 2100